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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,204	01/18/2006	David Sharony	SHARONY=1	8331

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EXAMINER	
ALLISON, ANDRAE S	

ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
04/06/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/523,204	SHARONY, DAVID	
	Examiner	Art Unit	
	ANDRAE S. ALLISON	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Amendment filed 10/22/2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-10,12-14,16-18,20,21,23-29,31-33 and 36-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,4-7,9,10,12-14,16-18,20,21,24,26-29,31-33 and 36-37 and 39-40* is/are rejected.

7)☒ Claim(s) *3,8,21,23,25 and 38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Remarks

1. The Office Action has been made issued in response to amendment filed December 22, 2009. Claims 2-10, 12-14, 16-18, 20, 21, 23-26, 28, 29, 31-33 and 36-40 are pending.

Claim Rejections – 35 USC section § 112

Applicant has amended 3 to provide proper antecedent basis for all claims limitations. Therefore, the rejection is withdrawn.

Claim Rejections – 35 USC section § 103

Applicant has submitted a copy of priority document which has a filing date prior to Coffey. Therefore, Coffey is no longer considered prior art and the previous rejection is withdrawn. However, upon review of the prior art, a new ground of rejection is being presented.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2, 4-10, 12-14, 16-18, 20, 24, 26, 28, 29, 31-33, 36-37, and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Ellis (US Patent No.: 5,412,420).

As to independent claim 2, Ellis discloses a method for optimizing nutrition of an animal (a method for evaluating the physical characteristics of animals - see column 1, lines 6-15), the method comprising automatically monitoring the energy balance of the animal (note that by evaluating the physical condition, the strength and form of the animal can be determined – see column 10, lines 50-55), said monitoring comprising: 1) imaging a predetermined region (e.g. hip bone – see column 6, lines 26-28) of interest on the animal body, and generating data indicative (data capture from camera – see column 4 , lines 25-30) thereof; ii) processing the generated data to obtain a three-dimensional representation of the region of interest (generate three dimensional of a single location – see column 2, lines 40-46; iii) analyzing said three-dimensional representation to determine a predetermined measurable parameter indicative of a surface relief of the region of interest indicative of the energy condition of the animal (note that traits are derived from the 3d data and is compared to a scale to determined the animal's physical condition – see column 5, lines 50-67).

As to claim independent 24, this claim differs from claim 2 only in that claim 24 is system whereas, claim 2 is method and the limitations an optical device including an illuminating assembly and a light detection assembly, a control unit connectable to the optical device, the control unit comprising a memory utility a data processing are

additively recited in the preamble. Ellis clearly teaches a system (see Fig 1) comprising: an optical device (132 –see Fig 1) including an illuminating assembly (a laser light array – see column 2, lines 13-14) and a light detection assembly (note that the camera also captures the reflection - see column 2, lines 15-20), a control unit (402- see Fig 4) connectable to the optical device, the control unit comprising a memory (see Fig 4).

As to claim 4, Ellis teaches the method wherein said imaging comprises illuminating the region of interest by structured light in the form of an array of spaced-apart light components to thereby illuminate an array of spaced-apart locations within the region of interest (a laser light array – see column 2, lines 13-14), and collecting light returned from the illuminated locations (note that the camera also captures the reflection - see column 2, lines 15-20)

As to claim 5, Ellis teaches the method, wherein said processing of the three-dimensional representation utilizes reference data representative of the body condition scales and corresponding values of said predetermined measurable parameter indicative of the curvature of the region of interest (see column 6, lines 35-67 – where reference tables are used).

As to claims 6 and 36, note the discussion above, Ellis teaches the method, wherein said predetermined measurable parameter indicative of the curvature of the region of interest is representative of a depth of the region of interest (note that the

depth is determined – see column 11, lines 18-21).

As to claims 7 and 37, Ellis teaches the method wherein said specific measurable parameter is indicative of the curvature of the surface (see column 10, lines 40-45) of the region of interest with respect to a predefined reference plane (e.g. pin bone – see [p][003], line 3).

As to claims 9, 33 and 40, Ellis teaches the method, wherein said specific measurable parameter is representative of at least one of the following a distance between the reference plane and a point in the region of interest mostly distant from said reference plane (see column 4, lines 1-12]).

As to claims 10 and 26, Ellis teaches the method, wherein said array of incident light components is produced by providing an array of light emitting elements (a laser light array – see column 2, lines 13-14) generating said array of incident light components, respectively.

As to claims 12 and 31, Ellis teaches the method, wherein the processing of said generated data comprises carrying out one of the following: (a) determining a relative shift of the illuminated locations from a relative location of the corresponding light component in the array of light components, said shift being caused by the curvature of the illuminated surface and being indicative of said curvature (see column 10, lines 43-

49).

As to claim 13, note the discussion of claim above. .

As to claims 14 and 32, note the discussion above, Ellis teaches the method, wherein (a) is carried out, and said imaging of the region of interest comprises carrying out one of the following: (i) acquiring an image of the region of interest, said shift being a distance between the illuminated location on the curved surface of the body part and a corresponding location along the trajectory of the corresponding light component (see column 12, lines 63-67 and column 14); and (ii) acquiring at least two images of the region of interest with different angles of collection of light returned from the region of interest, said shift being a distance between two illuminated locations of a matching pair of locations in the two images (see column 12, lines 63-67 and column 14).

As to claim 16, Ellis teaches the method, wherein the imaging comprises acquiring a sequence of images of the region of interest by a single camera at different relative positions between the camera and the region of interest (see column 2, lines 18-30).

As to claims 17 and 29, note the discussion above, Ellis teaches the method, wherein said camera is a video camera (see column 1, line 48).

As to claims 18 and 20, Coffey in view of Ellis does not teach the method, wherein said imaging is carried out during a movement of the animal along a predetermined path and the data representative of the acquired images is indicative of the existence of at least one of the following conditions: an in-coordination in the natural movement of the cow, and changes in the natural movement of the cow. However, it would have been obvious to capture images during a movement of the animal along a predetermined path and the data representative of the acquired images is indicative of the existence of an in-coordination in the natural movement of the cow or changes in the natural movement of the cow so that an entire image of the back, spine and back bone and muscle can be capture and the motion of the animal can determine the muscle mass of the animal.

As to claims 39, note the discussion above, Ellis teaches the method, wherein said predetermined measurable parameter is representative of at least one of the following: a part of a volume defined by the illuminated surface regions and said reference plane (see column 7, lines 5-15).

Allowable Subject Matter

4. Claims 3, 8, 21, 23, 25 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: None of the cited prior art teaches or fairly disclose "determining a body condition score of a diary cow, said region of interest including at least one of the following body parts: a rear part of the cow in the vicinity of its tail head an at least one of the dorsal parts of the cow".

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDRAE S. ALLISON whose telephone number is (571)270-1052. The examiner can normally be reached on Monday-Friday, 8:00 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7223. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vu Le/
Supervisory Patent Examiner, Art Unit 2624

/A. S. A./
Examiner, Art Unit 2624